

Application No. 10/023,992
Amendment dated June 14, 2005
Reply to Office Action dated March 14, 2005

REMARKS

Reconsideration and allowance of the above-identified application are respectfully requested. Upon entry of this Amendment, claims 1-10 will remain pending.

Applicant appreciates the Examiner's indication of allowable subject matter in dependent claims 3 and 7. Also, claims 6 and 7 are being amended as indicated above to correct their dependencies and thus eliminate the objections made by the Examiner. Also, editorial amendments are being made to claim 5 to make the terms more in accordance with method step format, and dependent claim 8 is being amended to depend from independent claim 5 instead of dependent claim 6.

Turning now to the substantive rejections, claims 1, 2, 4-6 and 8 are rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,606,349 to Kudhrehaya et al., in view of U.S. Patent No. 6,643,320 to Wilcox, et al. This rejection is respectfully traversed. Specifically, as discussed in more detail below, Applicant respectfully submits that the Kudhrehaya reference fails to teach or suggest a first correlation circuit or first correlation operation that correlates a received signal with a first reference sequence and outputs *an intermediate correlated signal that is then correlated by a second correlation circuit or second correlation operation to output a correlated signal*. Rather, the Kudhrehaya system as shown, in particular, in Figure 6 that was cited by the Examiner, provides a correlator 607 that correlates a signal 603 with a reference signal 605 and then outputs an *enable signal*, not an intermediate correlated signal. This enable signal thus controls the correlation circuit 617 in an on and off manner to perform a correlation operation on *the same received signal 603*, and not on the output of the correlator 607. The Wilcox patent also fails to make up for this deficiency.

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The details of the claimed embodiments of the present invention and the cited references will now be discussed.

As described throughout the present application, the present application provides a system and method for enabling a node that is operable in a wireless communication network to adaptively detect a signal in the presence of interference. Specifically, as shown in Figure 4 and described beginning at paragraph 0026 of the present application, the input signal is provided to a correlation circuit 124 that correlates the signal with a reference sequence and provides an intermediate correlation signal to a second correlation circuit 125. The second correlation circuit 125 correlates that intermediate correlation signal with a second reference sequence and thus outputs a correlated signal. That correlated signal is then compared to a threshold value generated by a threshold generating circuit to determine whether the signal includes the desired data signal. This arrangement provides a very accurate technique in detecting a data signal in the presence of noise. These features are expressly recited in independent claims 1 and 5.

The Kudhrehthaya et al. reference teaches a spread spectrum receiver comprising a plurality of correlators 607, 617 and 627 as shown in Figure 6. The Examiner contends that correlators 607 and 617 correspond to the first and second correlation circuits of the present invention. However, Applicant respectfully submits that as discussed above, and as described beginning at column 9, line 31 of the Kudhrehthaya patent, the correlator 607 outputs a signal to a computation unit 609, which in response outputs a signal to a comparator 613 that provides an enable signal 615 to control the operation of the correlator 617 in and on and off manner. In other words, the second correlator 617 performs a correlation on the received signal 603, and *not on the signal that is output by the correlator 607*. The output of the correlator 607 is merely

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used to control the operation of correlator 617 (see, in particular, column 9, lines 44-48). Applicant respectfully submits that this type of controlling operation is completely different from the relationship of the multiple correlation circuits in the present invention, in which the second correlator performs a correlation operation on the intermediate correlated signal that is output by the first correlation circuit.

Applicant further notes that the Wilcox patent is cited merely to teach an adaptive threshold circuit. However, Applicant respectfully submits that nowhere does the Wilcox patent teach or suggest the relationship between first and second correlation circuit and their respective operations as recited in independent claims 1 and 5 of the present application.

For all these reasons, Applicant respectfully submits that one skilled in the art would not have found the embodiments of the present invention even as defined in independent claims 1 and 5 obvious in view of the teachings of the Kudhrethaya and Wilcox patents. Accordingly, all claims should be allowable.

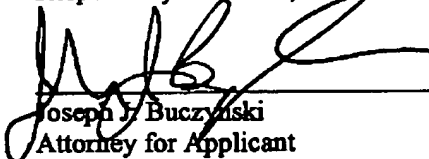
Concerning the rejected dependent claims 2, 4, 6 and 8, Applicant respectfully submits that both the Kudhrethaya and Wilcox patents fail to teach or suggest the averaging of an intermediate correlated signal for a period of time as recited in dependent claims 2 and 6, as well as the operations performed by the comparison circuit on the correlated signal as recited in dependent claims 4 and 8. Applicant again notes that the correlated signal is output by a second correlation circuit that performed the correlation operation on an intermediate correlation signal output by a first correlation circuit. Hence, all of these claims distinguish from the teachings of the Kudhrethaya and Wilcox patents.

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In addition, new dependent claims 9 and 10 are being added to specifically define the wireless network as an ad-hoc wireless network.

In view of the above, it is believed that the subject application is in condition for allowance, and notice to this effect is respectfully requested. The Examiner is invited to contact the undersigned with any questions at the number indicated below.

Respectfully submitted,

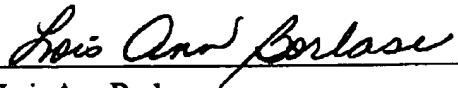

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CERTIFICATE OF FACSIMILE TRANSMISSION

I hereby certify that this AMENDMENT (along with any documents referred to as being attached or enclosed) is being facsimile transmitted to the U.S. Patent & Trademark Office, Attention: Examiner Tuan PHAM, Art Unit 2643, Facsimile Number 703-872-9306, on the date shown below:

Date: June 14, 2005


Lois Ann Borlase

DC01/ 485188.2